December 21, 2017

Torsten Clausen
Director of Policy
Illinois Commerce Commission
160 N. LaSalle Street
Chicago, IL 60601
Sent via email to: torsten.clausen@illinois.gov

Post-Workshop Comments of the Natural Resources Defense Council
December 21, 2017

The Natural Resources Defense Council (NRDC) appreciates the opportunity to comment on resource adequacy issues in Zone 4 of Illinois (as defined by the Midcontinent Independent System Operator (MISO)). As the Illinois Commerce Commission (Commission or ICC) staff reports in its White Paper on the subject, there is no near-term resource adequacy shortfall in Zone 4. MISO's prior projections of a resource adequacy shortfall have not come to pass.

Further, Dynegy's claim that closures of even a portion of its capacity in the near future would result in serious resource adequacy deficiencies in Zone 4 is unsubstantiated and does not reflect current trends across Zone 4 and more generally MISO. Its claims about extreme capacity prices are also exaggerated and do not reflect historical data and future investments.

We urge the Commission to avoid endorsing any proposals to compensate resources for ill-defined attributes of resilience or reliability or resource adequacy, because no such need has been demonstrated in Zone 4. For its part, the Commission can encourage MISO to implement targeted reforms to MISO's markets and planning functions that will increase resource adequacy options and reduce consumer costs in Zone 4.

NRDC would be pleased to speak at the next workshop when it is scheduled and elaborate on the following comments in more detail.

DISCUSSION

1. **Dynegy's claim that closures of even a portion of its capacity in the near future would result in serious resource adequacy deficiencies in Zone 4 is unsubstantiated and does not reflect trends across Zone 4 and MISO**

Dynegy has created a false sense of urgency by arguing that the retirement of even a portion of its coal plants would result in resource adequacy shortfalls in Zone 4. However, Dynegy has failed to provide any analysis or modeling to support its claim and grounded its argument in a simplistic number-crunching exercise (laid out in its pre-workshop comments), which does not

capture the complexity of the power sector, nor does it evaluate the impacts of future demand and supply sources in Zone 4. Any claim of this significance must be grounded in detailed power sector modeling which evaluates Southern Illinois' ability to fill whatever gap exists from any lost output, including from the some or all of the Dynegy coal plants.

a. Dynegy's unsubstantiated claim about potential resource adequacy deficiencies ignores the unique characteristics of MISO Zone 4, which makes it well equipped to handle any potential closures.

Dynegy assumes that if one or more of its coal plants were to close, Southern Illinois has absolutely no means of making up for the lost output. This is simply not true; Zone 4 and the MISO footprint are well-equipped to handle any closures as demonstrated by recent trends in Zone 4.

Southern Illinois is expected to experience an influx of new capacity both in the short-term and long-term, coupled with an in increase energy efficiency investments, which will enable load-serving entities (LSEs) to help meet future resource adequacy requirements despite potential closures. For example:

- Zone 4 will see a significant amount of renewables coming online in the near future. One reason is the new Illinois Power Agency's Long-term Renewable Resources Procurement Plan which envisions adding renewable energy credits (RECs) equivalent to nearly 370 megawatts (MWs) of wind and 560 MW of solar annually through 2030, at least some of which will be built in Illinois, including Zone 4.
- Additionally, MISO Zone 4 has more renewable energy capacity in the MISO queue than any other MISO zone. More than 4,300 MW of solar and wind capacity are in the definitive planning phase in the MISO interconnection queue for Zone 4 as of October 2017. Even under MISO's conservative assumption that only 35 percent of these projects will eventually come online, this is still at least 1,500 MW of new capacity poised to be in operation by 2020.
- Furthermore, both Ameren Illinois and Commonwealth Edison are required to substantially expand their energy efficiency programs under the recently enacted Future Energy Jobs Act, and both utilities are already projecting flat demand growth in their service territories[1]. These required, continued energy efficiency investments will help mitigate the need for the Dynegy plants' output.

[1] https://www.illinois.gov/sites/ipa/Documents/2018ProcurementPlan/LTRRPP-Appendix-B-RPS-Summaries.pdf

MISO Zone 4 is also uniquely capable of taking advantage of low cost resources outside of MISO Zone 4 region. This enables MISO Zone 4 to keep energy costs low and provides a competitive economic advantage to the region. Zone 4 has the second highest electricity import capability across the MISO footprint, characterized by the Capacity Import Limit (CIL). This means that LSEs in Southern Illinois have a bigger opportunity than nearly any other MISO region to take advantage of low-cost resources outside of Zone 4 to meet their Planning Reserve Margin Requirement (PRMR). At the same time, the CIL for Zone 4 has been steadily increasing between planning years 2014/15 and 2017/18, and nearly doubled between those same planning years. And, the proposed 2018/2019 CIL is even higher. Similarly, thanks to its large import capability, Zone 4 also has a relatively low Local Clearing Requirement (LCR). This means that LSEs need to rely less extensively on generation resources located inside Zone 4 to meet their PRMR. The trend in CIL, coupled with MISO's expected regional capacity surpluses through at least 2022 (discussed in more detail in Section 2 below) highlights the opportunity for Southern Illinois to increasingly take advantage of cost-effective capacity located in other MISO Zones to meet its PRMR.

Further bolstering MISO Zone 4 resource adequacy, Illinois is projected to experience a significant increase in its transfer capability with other MISO states in the near-term, as the five multi-value transmission projects (MVPs) that will be crossing through Illinois are expected to be completed by 2019 (one line is already complete). These new transmission lines will give LSEs in Zone 4 increased access to low-cost wind and other surplus generation located in other MISO zones, and thus enhance their ability of achieving resource adequacy while relying less on capacity located in the zone itself.

Additionally, Illinois has exported more than 20 percent of its power every year for at least the past four years. Even simply reducing some of those exports could go a long way in making up for any lost output from the Dynegy plants.

Thus, the image of a Zone 4 at the brink of resource adequacy and capacity shortages that Dynegy is trying to paint, is neither supported by modeling or analysis, nor consistent with recent and projected trends.

b. Dynegy's concerns about utilities in other MISO zones not being able or allowed to supply capacity to meet Zone 4 resource needs are unfounded

In its pre-workshop comments, Dynegy expressed skepticism, without much explanation, about the ability of suppliers in other MISO zones to supply capacity to Zone 4 and about the ability of load-serving entities (LSEs) in MISO Zone 4 to rely on these suppliers to meet their resource adequacy needs. Dynegy's only reasoning is "customer loads increase and existing capacity decreases (due to retirements) in the other MISO load zones". However, these concerns are unsupported and overlook recent and projected trends across the MISO footprint.

The 2017 MISO-OMS survey directly conflicts with Dynegy's unjustified skepticism. The 2017 MISO-OMS Survey shows that MISO will remain long on capacity through at least 2022. For example, planned transmission projects will help all MISO Zones, including Zone 4, can continue to meet their resource adequacy requirements beyond 2022. The construction of the new MVPs transmission lines to help meet state renewable energy standards is now well underway. When completed, these projects will move more than 40 terawatt-hours of wind energy annually from western MISO to demand centers in Zone 4 and eastward. These new transmission lines will help all regions of MISO meet their resource adequacy requirements by increasing their electricity import capability and thus access to wind and other surplus generation located outside of a particular region. The increased transmission capacity would also put downward pressure on capacity prices, and hence increase the ability of LSEs to maintain resource adequacy. In fact, MISO explained that the recent very low capacity prices ($1.50/MW-Day) were a result of the improved transfer capability between zones - MISO's South-to-Midwest export constraint increased from 876 MW last year to 1,500 MW this year, and the Midwest-to-South limit increased from 2,794 MW to 3,000 MW[2].

Further aiding MISO Zones ability to aid capacity in Zone 4, are new demand side and distributed generation resources. MISO projects that more investments in demand-side and distributed generation resources like rooftop solar will keep exerting a downward pressure on zonal planning reserve margin requirements (PRMRs), thus further enhancing LSEs' ability to meet resource adequacy requirements. If investments in energy efficiency and demand response programs and deployment of distributed generation resources continue to increase, as is projected, long-term resource adequacy across the MISO footprint, including Zone 4, will be more secure. And, it is clear MISO is expecting utilities and developers to make further investments in energy efficiency, demand side management, and distributed generation resources, because it has proposed the use of industry and Department of Energy National Lab experts to improve forecasts and siting of distributed generation resources in its MTEP19.[3]

For these reasons, the Dynegy's image of a future resource capacity-strapped MISO is unfounded based on either recent or future trends, and LSEs in Zone 4 are poised to have many opportunities to tap into regional surpluses to meet long-term resource adequacy needs if needed.

2. Dynegy exaggerates the potential for extreme capacity prices

In its pre-workshop comments, Dynegy claims that a do-nothing approach would drive Zone 4 capacity prices to Cost of New Entry (CONE)- currently set at approximately $260 per MW-Day- and/or force MISO to invoke its System Support Resources ("SSR") Tariff to require Dynegy to keep one or more of the retiring units in operation. Both of these options would be

[2] https://www.rtoinsider.com/miso-planning-resource-auction-41524/
[3] Please see NRDC's Pre-Workshop Comments, November 31, 2017.

very expensive to electricity consumers. These alarmist predictions also are baseless, given both historical trends and projected future investments.

The Zone 4 auction clearing price has never come close to CONE. On a calendar year basis, historical Zone 4 Planning Resource Auction (PRA) clearing prices have never been greater than 58 percent of CONE. And excluding the $150/MW-Day outlier of planning year 2015/2016, which FERC found to be unreasonably high in part because of flawed MISO auction rules, Zone 4 prices have never exceeded 28 percent of CONE between planning years 2013/2014 and 2017/2018 (refer to Figure 1), despite more than 8 percent of the Zone's capacity retiring between 2012 and 2016. (They have dipped as low as 0.4 percent of CONE.) Thus, Dynegy's predictions that Zone 4's capacity prices would undoubtedly reach CONE if a portion of its plants were retired are poorly supported and potentially misleading because they do not reflect how the Zone has historically reacted to capacity retirements.

In fact, prices have remained low despite the wave of retirements across the MISO footprint, with nearly 7 percent of MISO capacity retiring between 2013 and 2017. Considering both these historical trends in capacity prices and projected increased investments in energy efficiency, demand response and distributed resources across the MISO footprint (which would have the effect of depressing capacity prices), Dynegy is clearly overlooking how Zone 4 and all MISO Zones have historically reacted to and are poised to deal with capacity retirements.

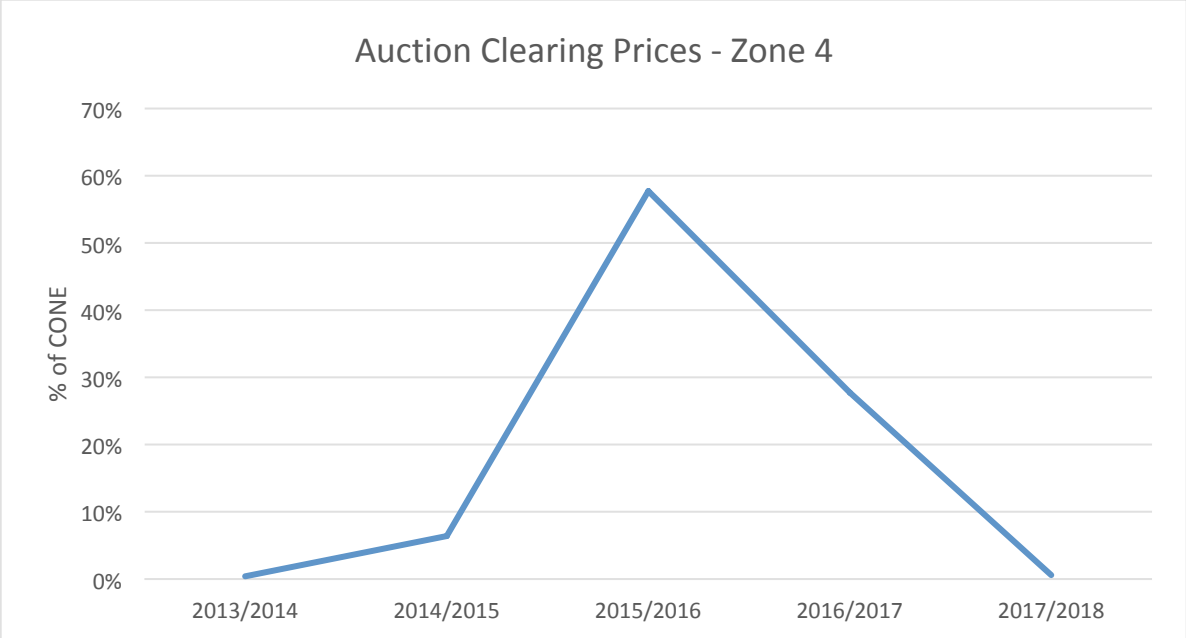


Figure 1: Planning Resource Auction Clearing Prices - Zone 4

Data Source: MISO - https://www.misoenergy.org/Library/Pages/ManagedFileSet.aspx?SetId=2054

Similarly, Dynegy's projection that MISO would be forced to enter into System Support Resource (SSR) contracts with the company to keep one or more of the retiring units in operation

for resource adequacy purposes is untenable. SSR contracts are employed to meet grid reliability needs, not reserve margin requirements. If a plant closure triggers a reliability issue such as a voltage drop or reactive power deficit, an SSR might be necessary to keep the plant on line while MISO's transmission owner members construct transmission lines or make other improvements to solve the issue. However, SSRs are not intended to address resource adequacy just as the PRA does not address system reliability. MISO instead relies on market forces and state action to make up any structural resource adequacy deficit.

3. The stakeholder process is not robust enough to adequately discuss the issue, nor does it afford clear opportunities for the public to weigh in

As NRDC has raised before, NRDC appreciates the ICC's efforts to examine this issue. However, given the complexity of the issue (discussed in part above) and outside factors that will impact the outcome, two workshops and three comment periods are simply not enough to appropriately address resource adequacy in MISO Zone 4. NRDC recommends that the ICC extend the number of workshops, comment periods, and timeline to ensure adequate participation and discussion and thus ensure the best outcome for Illinois.

This is an unnecessarily accelerated timeline, and NRDC recommends the ICC extend this timeline for several reasons. Acting quickly forgoes more information that will help the ICC draft a better report. For example, in late October, it was announced that Vistra Energy Corp. (Vistra), a Texas-based company, plans to buy Dynegy (also a Texas-based company). The deal is valued at $1.74 billion, and Dynegy's stocks soared after the announcement. It is unclear what Vistra's plans are for the Dynegy fleet in Illinois. The deal is anticipated to be finalized by the second quarter of 2018. Another reason or delay is the Federal Energy Regulatory Commission (FERC) currently is examining whether to compensate coal and nuclear power plants for their asserted resilience attributes.[4] It would be premature for the ICC to take any action before FERC acts and MISO responds to any potential proposal.

With all the unknowns, we urge caution in addressing any of these alleged issues. The impacts of any action may be significant, forcing consumers to pay for plants that are uneconomic and unnecessary. For these reasons, we urge the ICC to modify its process and extend its timeline to allow for more information, better discussions, opportunity for public engagement and participation, and a better outcome.

CONCLUSION

Again, as the Commission staff reports in its White Paper on the subject, there is no near-term resource adequacy shortfall in Zone 4. Dynegy's claims of resource adequacy deficiencies are unsubstantiated and do not reflect realities and trends that are occurring in MISO Zone 4 and MISO at large. And, with new renewable energy and transmission coming online, as well as use

[4] FERC, Grid Reliability and Resiliency Pricing, Docket No. RM18-1-000.

of energy efficiency and demand side management, a resource adequacy shortfall may not develop with time.

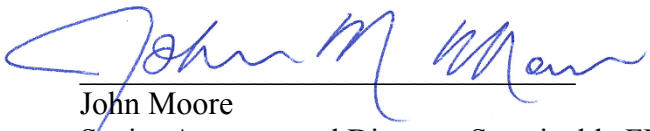
We again urge the Commission to avoid endorsing any proposals to compensate any resources for ill-defined attributes of resiliency or reliability or resource adequacy, because no such need has been demonstrated in Zone 4. For its part, the Commission can encourage MISO to implement targeted reforms to MISO's markets and planning functions that will increase resource adequacy options and reduce consumer costs in Zone 4 as discussed previously in our Pre-Workshop Comments.

The ICC should modify the workshop process to include more workshops, greater public participation, and an extended timeline for a better resulting report.

Finally, NRDC would be pleased to speak at the next workshop when it is scheduled.

Respectfully submitted,

Elizabeth Toba Pearlman
Staff Attorney/Clean Energy Advocate
Natural Resources Defense Council
20 North Wacker Drive, Suite 1600
Chicago, IL 60606
(312) 995-5907
tpearlman@nrdc.org



John Moore
Senior Attorney and Director, Sustainable FERC Project
Natural Resources Defense Council
20 North Wacker Drive, Suite 1600
Chicago, IL 60606
(312) 651-7927
jmoore@nrdc.org

Rachel Fakhry
Energy Policy Analyst
Natural Resources Defense Council
1152 15th st, NW, Suite 300
Washington DC, 20005
(650) 422-4628
rfakhry@nrdc.org